

Subj. circ'd

base station in a neighboring cell, the base station having a multi-services switch equipped
 4 with a first radio interface card for providing the wireless, bi-directional communication
 5 between the base station and the NIUs and a second interface card for providing the direct
 6 point to point radio inter-cell link.

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42. (Amended) A method of providing communications between base stations in a
 1 cellular, wireless network having multiple cells, each of the multiple cells having a base
 2 station, the method comprising providing a multi-services switch at each of the base stations,
 3 each switch being equipped with a radio interface card for providing direct bi-directional
 4 communication with other base stations in the network; providing a network manager in
 5 association with at least one of the base stations for configuring the radio interface cards, and
 6 providing a directional antenna for each multi-services switch to support point to point bi-
 7 directional communication between base stations over a direct radio inter-cell link.

REMARKS

In the last Official Action, the claims were renumbered 26-44. Claims 26-28, 30, 34, 35, 39, 42, and 43 were rejected as being obvious over Gilbert. Claim 31 was rejected as being obvious over Gilbert in view of Smith. Claims 29, 36, and 37 were rejected as being obvious over Gilbert in view of Pasternak. Claims 32 and 40 were rejected as being obvious over Gilbert in view of Jaisinhg. Claims 33 and 41 were rejected as being obvious over Gilbert in view of Acompora. As noted with appreciation, Claims 38 and 44 were indicated as being allowable if rewritten in a form independent of the rejected claims.

By way of this amendment, independent Claims 26, 34, and 42 have been rewritten to emphasize certain features of the present invention. The claims as amended are clearly patentable for the reasons which follow. (A minor error has also been corrected in Claim 26.)

The present invention is directed to a system and method for making better use of a licensed allocation of broadband frequencies for use in an LMDS implementation. In the prior art and as discussed in the background portion of the present application, beginning at line 11 of page 2, communications between base stations by way of an intercell link were separate from communication from the base station to network interface units with the cell. Traditionally, the intercell link was by way of a hardwired connections. When a radio link was used, a separate frequency allocation was required for this link.

The present invention allows base stations to communicate over an intercell link using

one of the frequencies allocated for base station to NIU communications. Because the intercell radio link simply applies one of the already licensed frequencies, it is easy to add links without having to obtain a separate license.

Turning now to Gilbert, its base station 106 and the active antenna array 108 were treated as the first and second interface cards. However, the second and third paragraphs of page 5 of the present application clearly describe such radio interface cards and the components 106 and 108 of Gilbert are not radio interface cards.

The rejection is based upon a contention that, although Gilbert does not explicitly disclose an interface system for providing a point to point inter-cell radio link for communicating with a base station in a neighboring cell, this is somehow implied. Specifically, it is said in the rejection that "Gilbert further discloses in Figure 4 that the two base stations 106 are connected by wired cable." Part 3 of the Official Action goes on to say that "to implement the radio inter-cell link to the wire/fiber-optical/coaxial cable would have been highly desirable and obvious." The Office Action says that the motivation/suggestion for doing so is to reduce the high cost of setting up connecting cables between two or more base stations.

Gilbert at column 10 beginning at line 3 states

"As shown in Figure 4, the cell sites 104 communicate with a communications hub 114 using a 'non-radio frequency' type of communication link or "back haul" 116. The back haul 116 preferably comprises either a fiber-optic cable or a microwave link. The communications hub 114 interfaces with wireless communication system 100 with public network service providers via one or more wired communication links (not shown)."

Thus, Bilbert specifically teaches that the communication link 116 is a non-radio frequency. This is in direct contrast to the radio link as defined in the claims. Although Figure 4 of Gilbert does show line 116 connecting cell site 104 of the left hand cell with cell site 104 in the right hand cell, there is NO suggestion or teaching that the line 116 if for any purpose other than to connect hub 114 to the cell sites. Therefore, there is nothing to indicate or suggest that the "back haul" 116 is used to provide an intercell link.

The Office Action further equates the multi-services switch at each base station with a switch that may be inherent in the array antenna to control the activity of the array antenna at each of the base stations. However, as discussed in the application and in particular at page 5

line 17 to 20, the radio interface cards are installed in an ATM multi-services switch at the base station.. The multi-switches switch of the present invention is clearly NOT the same as a switch in an array antenna that controls the array

Considering further that each of the independent claims has now been amended to require a "direct" inter-cell radio link, this is clearly different from the hub arrangement shown in FIG. 4 of the Gilbert patent. The independent claims are clearly patentable as amended.

None of the other applied references show or suggest the obviousness of modifying Gilbert to incorporate the various features discussed above as missing from Gilbert.

The dependent claims not already discussed are patentable based upon the patentability of their parent claims and based upon numerous of the limitations appearing therein.

An early Notice of Allowance is respectfully requested.

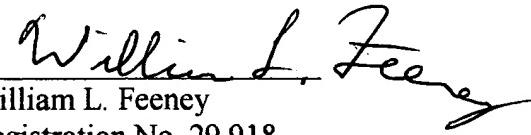
In the unlikely event that any issues remain unresolved following this amendment, the Examiner is requested to telephone the undersigned in the hopes of expediting allowance of the application. Considering especially the long history of this prosecution including indications of allowable subject matter that were later withdrawn, the courtesy of a telephone call to attempt to expedite the approval would be most appreciated.

The amendment is being made to expedite allowance of the application. Unless expressly stated otherwise relative to one or more particular rejections, no concession is made or intended that any rejections were proper. Applicant reserves the right to later assert the patentability of any previous versions of the claims and any canceled claims.

Although no fee is believed due beyond any attached by check, permission is hereby granted to charge our Deposit Account No. 50-1165 for any charges in connection with this paper or any extensions necessary with this paper.

Respectfully,

16 Jan 2001
Date



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